## Fast Facts: Heathy roots and Stronger Shoots are the Key to Plant Health

by the Green Solutions Team

The relationship between healthy turfgrass roots and shoots is mutually beneficial. Healthier leaves are more effective at photosynthesis, converting sunlight into usable energy (sugars) that are transported to the roots. Conversely, a healthy and robust root system can efficiently supply necessary nutrients and water to the entire plant. This positive feedback loop is essential for developing a stronger turfgrass stand, enhancing its ability to withstand stresses commonly encountered on golf courses. Here's some advice on integrating Signature<sup>®</sup> XTRA Stressgard<sup>®</sup>, Resilia<sup>™</sup>, and Castlon<sup>™</sup> into a comprehensive protection program can initiate a continuous cycle of improved plant health.

## Benefits of including Signature XTRA Stressgard into a foliar disease program

- Enhanced formulation with an antioxidant alleviates turf stressors associated with excessive shade, temperature, traffic, drought, and mechanical stresses.
- Protection from harmful UV radiation and enhanced photosynthesis even under low light conditions.
- Helps maintain cell integrity over and above disease control from the active ingredient.
- True systemic fungicide with no history of resistance, allowing it to be used repeatedly throughout the year.

## Benefits of including Resilia™ Root Health Solution and Castlon™ into a root disease program

- Resilia includes three MOAs, including the safest DMI on the market in prothioconazole, a FRAC group
  28 Pythium specialist in propamocarb, and the SDHI fungicide/nematicide fluopyram.
- This is the first all-on-one solution that controls all major turf root pathogens, including fairy ring, patch disease, Pythium root rot, and suppression of pathogenic nematodes.
- Our newest fungicide, Castlon™, is a standalone QoI fungicide that provides an excellent rotational partner with Resilia for year-long root disease control.
- Castlon provides industry leading fairy ring control while also controlling other soilborne disease such as take-all, summer patch, and Pythium root rot.

## **Applications tips**

- Signature XTRA Stressgard
  - o Should be applied as a foliar spray on two-week intervals.
  - o On cool-season greens, start applications before peak summer stress and continue through at least Labor Day weekend. For warm-season greens, apply Signature XTRA every two weeks from mid-to-late summer through early winter. An early spring application will also help with spring green-up.
- Resilia and Castlon
  - o Should applied into the rootzone with post-application irrigation.
  - Rotate Resilia and Castlon monthly on both cool- and warm-season putting greens to manage all major soilborne root diseases throughout the season. The most crucial periods for controlling root pathogens are mid-summer on cool-season turf, and late summer through early fall on warm-season turf.

